

Appl. No. 10/656,564
Amdt Dated Oct. 10, 2005
Reply to Office Action of Jul. 28, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended): A traceable patch cable used to transmit signals from a receptacle to another receptacle comprising:

a cable; and

two connectors disposed on opposite ends of said cable;

wherein said cable comprises at least one electrical wire for transmitting signals and an optical fiber for transmitting light, said connectors terminate said at least one electrical wire therein so that the at least one electrical wire can be electrically connected to at least a terminal in a corresponding said receptacles, at least a first of the two connectors defines a passage and terminates a first end of the optical fiber opposite to the passage, a second of the two connectors forms an illuminating member thereon and terminates a second end of the optical fiber therein with a predetermined distance left between the illuminating member and the second end of the optical fiber, when a light beam shines through the passage of the first connector at a first end of the patch cable, the light travels through the optical fiber from a first end to a second end thereof, the light exiting from the second end of the optical fiber irradiates the illuminating member of the second connector at a second end of the patch cable, and thus the illuminating member luminesces for identification;

wherein each of the two connectors comprises an illuminating member, and

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said passage is defined in each illuminating member.

2-9. (canceled)

10. (currently amended) A connector assembly comprising:

a patch panel;

a plurality of terminals; and

a plurality of patch cables, each patch cable electrically connecting the patch cable and one terminal for signal transmission therebetween, each patch cable comprising a cable and two connectors disposed on opposite ends of the cable, the two connector respectively mating with the patch panel and one terminal; wherein

the cable comprises at least one electrical wire to transmit signals between the patch panel and the terminal, and further comprise comprises an optical fiber for transmitting light therethrough, wherein at least one of the two connectors defines a passage therein, the other of the two connectors forms an illuminating member, using a light beam shining through the passage at a first end of the cable, the light travels through the optical fiber and irradiates the illuminating member, the illuminating member then luminesces at a second end of the cable for identification;

wherein said connector comprises a transparent housing, and the illuminating member is formed on an outer surface of the transparent housing.

11-14. (canceled)

15. (currently amended) A method for identifying corresponding ends of a patch cable used to transmit signals between a pair of receptacles, the patch cable

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comprising a cable and two connectors disposed on opposite ends of the cable, the cable having at least one electrical wire for signal transmission and an optical fiber for transmitting light, the connectors respectively removably mate with the receptacles, the method comprising the steps of:

forming a passage at least in a first of the two connectors, and an illuminating member at least on a second of the two connectors;

providing an external light beam shining through the passage of the first connector at a first end of the patch cable, then the light traveling through the optical fiber to irradiate the illuminating member of the second connector at a second end of the patch cable;

identifying the illuminated ends at the second end of the patch cable as the corresponding end;

wherein each of the two connectors comprises an illuminating member, and each illuminating member defines said passage therein.

16-20. (canceled)